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ABSTRACT

After a discussion of cognitive schemata, identified as representing a "gestalt" stored in human memory, this paper explores three pedagogical modes: the use of drama, humor, and suspense in the classroom. Ways that each pertain to cognitive and communication theory are discussed, and classroom examples of how each mode provides discrepant stimuli are provided. It is assumed that in second language (L2) acquisition, cognitive schemata cause L2 interference at the various levels, and that recent L2 theories argue for a distinction between formal or classroom learning and natural acquisition. Truly creative language teaching takes advantage of such a significant notion as cognitive schemata by using novelty in a planned, partial immersion environment that makes foreign language and culture meaningful and relevant. It is concluded that new experience, such as that provided by discrepant stimuli, interacts with cognitive structures to arouse interest and develop understanding. Effective teachers can use drama, humor, and suspense to provide appropriate and meaningful contexts to classroom instruction. Contains 45 references. (LB)

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The Role of Cognitive Schemata and Discrepant Stimuli in the Foreign Language Classroom

Like a fingerprinted window on the world, cognitive schemata represent a Gestalt stored in the human memory. If the fingerprint stands for nurture and acquired experience, the window represents all that is genetically encoded--nature and the innate. In their standard textbook, Educational Psychology, Gage and Berliner define cognitive schemata as "abstract structures that represent the knowledge stored in memory" (317). Not unlike a computer's Disk Operating System and software, cognitive schemata permit a hermeneutics of one's individual environment. One flip critic referred to the concept as "the little black box." I believe there is an implicit analogy with human language and culture: like language, schemata "determine how we interpret [an] experience" (Gage-Berliner 317).

In the broadest psychological terms, the problem addressed here falls into the category of perception--visual, auditory, tactile, and so forth. From this, it is a short step to esthetic perception and interpretation of a work of art.

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Among Jean Piaget's vital principles of cognition is his notion of human **adaptation**, which involves both assimilation and accomodation, embracing the concept of discrepant stimuli. Such stimuli are assimilated by constructing an external event or object in terms of what is available in one's previous experience. Here, undistinguished discrepant stimuli become, by means of assimilation, conventions for the individual. For example, a piece of wood floating in a bathtub is called a "boat" by the child. Further, discrepant stimuli involve accomodation when one takes account of what one knows about something and applies it to a new experience. For instance, at a certain level of development, a more discriminate infant eventually rejects all nipple-shaped objects and accepts only a bottle for sucking.

The schemata referred to include the metacognitive strands that constitute the stuff that at once informs learning styles and allows us to invest in some aspect of our experience (Bruner 1987: 61-96; Rivers 49-81). Beyond simple empirical groping, highly complex human intelligence invents deductively, and--faced with disequilibrium (the "new")--reorganizes assimilatory schemata (Piaget 241, 244).

Cognition is guided and cued by context, which in turn mediates cognition (Flower 286-289). Put simply, new experience--that is, the novel, or discrepant stimuli--interacts with cognitive structure to arouse interest and develop understanding.

The new experience must fit in to some extent with what the individual already knows. But it should not fit so thoroughly as to prevent all incongruity and conflict. Thus, as Gage and Berliner phrase it so aptly, moderate novelty helps, zero novelty bores, and radical novelty bewilders (149). They write further,

> ... meaningfulness depends on engaging appropriate schemata. If the relevant schemata do not exist, then a teacher needs to provide a context of schema for what is to be learned. In this way the new material can be assimilated into existing knowledge structures and 'cross-listed' with other schemata" (318).

While humans may seem to recall from memory best through verbal patterning (Miller-Selfridge), it seems we learn best by means of tempered or controlled discrepancies or variations in a given meaningful stimulus--demonstrable empirically with attentive gazing at the stimulus or increased heart rate (Kagan, 1970; Finley-Kagan 1972; Kinney-Kagan 1976; McCall-Kagan 1967; Kagan 1981; 1989; Izard, et al., 1984).

Modern psychology has shown that human "attending" from the age of two years, focusses more on arrangements or combinations than on mere simple complexities. Humans pay more attention to models which differ only slightly with respect to those arrangements already known. That is to say, very familiar images and totally bizarre ones will not retain the sensorial attention of humans. This is called "principal of divergence," formulated over twenty years ago by Harvard developmental psychologist,

Jerome Kagan (Kagan 1970; cf. M. Arbib, The Metaphorical Brain).

I believe that the more successful foreign language teacher uses challenging, unanticipated, incongruous, and sometimes surprising classroom stimuli to capture and retain student attention, thus assuring cognitive growth. From such conflict or disequilibrium learning will flow. Three pedagogical modes will be explored here--the use of drama, humor, and suspense in the classroom. We will see how these practical modes pertain to both cognitive and to communication theory.

In second language (= L2) acquisition, it may be assumed that cognitive schemata cause what linguists refer to as L2 interference, at the lexical, phonemic-morphophonemic, semantic, and syntactical levels (Weinreich 388-389--chart of stimuli vs. resistance factors). For instance, English syntax dominates the student's thought processes (e.g., John's daughter's book), until s/he manages to internalize and invest in the very different possessive form in French (le livre de la fille de Jean), and then use it correctly without hesitation. Or, terms like bidet, café au lait, or even savoir-faire, having no real English equivalent, must be explained through paraphrase, and even then are comprehensible to the novice only through accommodation.

Recent theories of L2 argue for a distinction between formal (classroom) learning and natural acquisition, the latter experience called "the din in the head" (Krashen), which, like both night dreaming and daydreaming--crucial to one's mental

health--when linked to comprehensible input (just beyond the student's ability level), should diminish both the affective mode and student stress (Krashen 295-301).

Truly creative language teaching takes advantage of such a significant notion as cognitive schemata, by using moderate novelty in a planned, partial immersion environment (Capretz-Lydgate ix-x). This approach will certainly encourage the "din in the head" as well as provide students with an opportunity to study formal grammar rules, i.e., to confront the official "language" as printed in the book with the "speech" they are gingerly acquiring. Combined with strong doses of boredom-effacing variety, stress-reducing humor, tempered discrepancy, and "cool passion," disequilibrium is certain to arise, followed by motivation.

The real challenge is making the foreign language and culture no longer foreign--engaging rather, relevant, and meaningful to "tongue-tied," arrogant, and isolationist Americans in general (Simon); and in particular to modern undergraduates who are interested almost exclusively in subjects other than foreign languages and cultures (e.g., animals, business, or the rock music industry).

Nevertheless, the effective teacher must provide appropriate and meaningful contexts, thus tapping in to the learners' already existing knowledge structures. A story line dealing with beekeeping among the Venezuelans, or with elderly members of the

Spanish Academy, or even with Thomas Mann's financial records (zero novelty) would no doubt have a soporific effect on today's television-literate youth.

How can we as language teachers apply some of these principles in the classroom?

1. Drama comes first. In this country, the most visible proponent of this methodology has been language professor John Rassias of Dartmouth College. In a word, his argument is that lessons learned in dramatic settings (from the Greek, meaning "action-oriented") are more indelible. I would add that, since students aren't expecting such novelty, drama creates a discrepant stimulus. For example, to assure retention of a basic dialogue dealing with two college students traveling by plane to Paris (Rassias, Départ-Arrivée), acting out each role for the students can provide a means of comprehension without word-for-word translation, as well as delighting and surprising the students with diverse voices, exaggerated movements, and an expression of enthusiasm (E.g., Stewardess: "Good evening! Here are your dinners. How are you doing?"). At a higher level, to teach the future/conditional tenses in French: a "fairy godfather" suddenly appears--replete with fancy dress and hat and magic wand, asking each student for "three wishes" (Cormier 1983). The discrepant stimuli of drama may be assumed then to make ordinary situations stand out and thus imprint permenantly the memory of the student.

2. Humor in the foreign language classroom is indispensable; without it, tedium sets in very quickly. Several researchers have stressed the vital role of humor in all human activity (Curtius 417-435; Brueggeman).

To illustrate: at the basic level in a German setting (adapting Rassias), the hero of the story, on the way to Berlin, a) loses his sleeping bag, then finds it; b) meets up with a disagreeable and crochety taxi driver; and c) finally arrives at his destination, in Munich, at the home of his host family, and discovers he deperately needs to pee! In another context (French in Action), the heroine's little sister plays a joke and sends her older sister on a wild goose chase ("Maman te cherchait")--to teach the imperfect! These situations lend themselves naturally to humorous interpretation, while one is in the process of absorbing vocabulary, syntactical structures, and even cross-cultural tips for proper behavior. Their inherent humor can be exploited by the language teacher to introduce discrepant stimuli into the classroom setting. Humor in second language learning reduces anxiety and stress, and can be a powerful enhancer of cross-cultural object lessons. As the French proverb puts it, "You can catch more flies with honey than with vinegar."

3. Suspense can help introduce discrepant stimuli as well. Bringing to class a brown paper bag with a number of items hidden inside--to teach vocabulary--can be an effective use of suspense. Pulling out something outrageous like a boa constrictor from the

bottom of the bag would certainly capture students' attention! A more subtle use of suspense occurs in the alteration of one's lesson format for each day's class, so students cannot accurately predict your patterns. Use of surprise quizzes has similar effect. Drawing a mysterious figure on the board at the beginning of class and leaving your exploitation of it until the end of class is also suspenseful. In the Spanish context, it may be possible to peak the curiosity of students by delaying the answer to an important question, for example, will the heroine of the story be present at an evening dinner party to which the hero has been invited? Suspense introduces the discrepant stimuli of anticipation and delight over novelty.

* * *

Clearly, then, salient events must not be too bizarre or confusing, and they must be relevant. On this latter notion, I want to refer to the brilliant work of Wilson and Sperber in pragmatic linguistics: their relevance theory argues that communication can take place only when there is "mutual knowledge" and a "presumption of relevance" (Sperber and Wilson, 1986; Wilson and Sperber, 1988).

> To communicate is...to claim someone's attention, and hence to demand some expenditure of effort. People will not pay attention unless they expect to obtain information that is rich enough in effects to be relevant to them. Hence, to communicate is to imply that the stimulus used (for example, the utterance)

> is worth the audience's attention. Any utterance addrssed to someone automatically conveys a presimption of itsown relevance. This fact, we call the principle of relevance (1988:140).

What broad conclusions may we draw from this lesson? Well, on a grander, macrocosmic scale, I believe the experience of discrepant stimuli may be compared to the kinds of insights that lead to a scientific revolution, as defined by Kuhn. Such a revolution causes a dramatic shift in received paradigms: "a model or frame of reference that is not consciously adverted to as a model but that nevertheless determines the way one thinks about things" (Ong, 1977:338). At the microcosmic level, new understanding may spring from new information--arising from discrepant stimuli--when an individual constructs new meaning for him/herself--whether through mnemonics, simile, analogy, or metaphor--thus facilitating recall and learning.

Put simply, new experience interacts with cognitive structures to arouse interest and develop understanding. As suggested with regard to assimilation and accomodation, new experiences must fit in to some extent with what the individual already knows. But they should not fit so thoroughly as to prevent all incongruity and conflict.

Combined with strong doses of boredom-effacing variety, egregious dramatics, stress-reducing humor, attention-grabbing suspense, and "cool passion," disequilibrium is certain to arise,

followed by ideal learning environments and higher student motivation. Nevertheless, the effective teacher must provide appropriate and meaningful--again, relevant--contexts, thus tapping in to the learners' already existing knowledge structures, with tempered discrepancies. Drama, humor, and suspense can be powerful tools in the hands of a gifted and committed foreign language teacher.

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